

ABSTRACT

A method and apparatus for adaptively removing interference from a signal. In one embodiment, the invention comprises an infinite impulse response (IIR) notch filter configured to receive a wideband signal and provide a filtered output signal, and a controller coupled to the notch filter to adaptively control the null frequency of the notch filter thereby removing narrowband interference from the received wideband signal. The controller may employ a gradient-based algorithm to detect the highest power frequency band in the output signal and modify the null frequency of the notch filter to minimize the power of the output signal.